

Patent Claims:

1. An ultralight trim composite (1) comprising a first acoustically effective layer (4) and a second underlay layer (5), characterised in that for the balancing of the absorption and sound transmission behaviour of the composite, the first acoustically effective layer (4) has an air flow resistance R between 500 Ns/m³ and 10'000 Ns/m³ and has an area mass m_A between 200 g/m² and 3'000 g/m², the second underlay layer (5) has a very low compression force deflection modulus, i.e. a stiffness value S_D in the range between 100Pa and 100'000Pa and in addition comprises an acoustically transparent, very thin and light weight film (6) between the second underlay layer (5) and the first acoustically effective layer (4), which film interacts with this underlay layer (5) in the manner of an acoustic foil absorber (9).
2. Composite according to claim 1, wherein the second underlay layer (5) is a backfoamed layer.
3. Composite according to claim 1, wherein the second foam underlay layer (5) consists of a foam slab.
4. Composite according to claim 3, wherein the foam slab comprises an open pored skin.
5. Composite according to claim 1, wherein the film (6) is perforated in order to increase the absorption properties.
6. Composite according to claim 5, wherein the film (6) is microperforated.
7. Composite according to claim 1, wherein the film (6) is unperforated in order to increase the transmission loss.
8. Composite according to one of the previous claims, wherein the first acoustically effective layer (4) has a thickness of 0.5 mm to 8.0 mm
9. Composite according to claim 8, wherein the first acoustically effective layer (4) has an area weight of about 1 kg/m².

10. Composite according to one of the previous claims, wherein the second foam underlay layer (5) acting as a decoupler layer, has a thickness of about 20mm.
11. Composite according to claim 1, wherein the film layer has a thickness of about 0.01 to 1.0 mm